

CLAIMS

1. A tire-information administration system comprising: a plurality of sensor modules installed in tire; at least one reception module configured to receive data from the sensor modules; and a central control module configured to command the reception module to acquire data from the sensor modules; wherein
5 said central control module comprises:
a predetermined number of connection ports for the reception module, assigned in advance to each sensor module; and
10 control means configured to: sequentially output at predetermined sampling time a command of data acquisition from a sensor module, to the connection port assigned to each sensor module; assign the connection port to the sensor module for the next sampling, when there is a data input from the sensor module in response to the command;
15 and assign data acquisition from the sensor module to another connection port, and assign the other connection port to the sensor module for the next sampling, when there is no data input from the sensor module even by the command issuance.
2. The tire-information administration system according to
20 Claim 1, wherein there is outputted a trouble signal of the tire-information administration system, when a response from the sensor module is absent at all the connection ports.
3. The tire-information administration system according to
Claim 1 or 2, wherein the sensor module includes means for detecting
25 an internal pressure of tire.
4. The tire-information administration system according to
Claim 1 or 2, wherein the sensor module includes means for detecting a temperature in tire.
5. A tire-information administration system comprising: a
30 sensor module mounted in tire, respectively; a reception module configured to receive data from the sensor module; and a central control module configured to command the reception module to acquire data from the sensor module;

wherein the reception module comprises: a plurality of antennas each arranged near any one of tires and configured to transmit and receive signal to and from the sensor module; a single reception body portion connected to the antennas via wirings; and antenna switching means for electrically connecting and disconnecting between the reception body portion and each antennas; and

5 wherein the reception body portion is provided with control means for modulating a command signal from the central control module to thereby generate an output signal to antenna, and for
10 demodulating a signal from antenna to thereby output data to the central control module.

6. The tire-information administration system according to Claim 5, further comprising amplifier configured to amplify said transmission signal and said receipt signal, near each antenna.

15 7. The tire-information administration system according to Claim 5 or 6,

 wherein the sensor module is previously assigned to the antenna, respectively; and

20 wherein said central control module is configured to conduct procedures for: sequentially outputting at predetermined sampling time a command of data acquisition from a sensor module, to the antenna assigned to each sensor module; assigning the antenna to the sensor module for the next sampling, when there is a data input from the sensor module in response to the command; and assigning data acquisition from the sensor module to another antenna, and assigning the other antenna to the sensor module for the next sampling, when there is no data input from the sensor module even by the command issuance.

25 8. The tire-information administration system according to Claim 7, wherein there is outputted a trouble signal of the tire-information administration system, when a response from the sensor module is absent at all the antennas.

30 9. A tire-information administration system comprising: a plurality of sensor modules, mounted in tires, respectively, which

detect internal pressures of tires; an antenna each arranged near any one of the tires and configured to transmit and receive signal to and from the sensor modules; and a central control module configured to control transmission signal from each antenna and transmission timing

5 thereof;

wherein the sensor modules are provided with receipt signal strength measuring means for measuring a strength of a receipt signal; and

wherein the central control module is provided with: receipt
10 signal strength acquisition control means for commanding all the sensor modules mounted on a vehicle, to measure receipt signal strength for signal transmitted from each antenna and to transmit measurement result; and sensor module position specifying means for specifying installed position of the tire having each sensor module
15 mounted thereto, based on receipt signal strength measurement data from each sensor module.

10. The tire-information administration system according to Claim 9, wherein said antenna is configured to have directivity, and each antenna is mounted in a posture to exhibit a higher directivity in
20 the direction of the associated tire.

11. The tire-information administration system according to Claim 9 or 10, wherein said receipt signal strength acquisition control means and said sensor module position specifying means are configured to conduct respective execution procedures,
25 correspondingly to timing of engine starting of a vehicle.